



ECHO STAR SATELLITE CORPORATION

A Part of the EchoStar Group of Companies

EX PARTE OR LATE FILED

January 31, 2003

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street S.W.
Room TW-A325
Washington, DC 20554

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ORIGINAL

JAN 31 2003

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: **Ex Parte Notice - In the Matter of Digital Must Carry (CS Docket 98-120)**

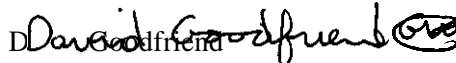
Dear Ms. Dortch:

In accordance with Section 1.1206 of the Commission's Rules, 47 C.F.R. §1.1206, EchoStar Satellite Corporation ("EchoStar") submits this letter to report that representatives of EchoStar met with members of the Commission staff during on Thursday, January 30, 2003. Representatives from EchoStar included Dave Kummer (Senior Vice President, Engineering and Systems), Lori Kalani (Legal Intern), and the undersigned. FCC staff members who attended the six meetings included Stacy Robinson of Commissioner Abemathy's Office; William Johnson, Rick Chessen, Ben Golant, Eloise Gore, Ben Bartolome, Rosalie Chiara, John Wong, and other staff members of the Media Bureau: Susan Eid of Chairman Powell's office; Catherine Bohigian of Commissioner Martin's office; Sarah Whitesell of Commissioner Adelstein's office; and Alex Johns of Commissioner Copps' office.

At the request of Commission staff, we held these meetings to address DBS high-definition digital must carry issues. Attached, please find a copy of the power point presentation that we discussed in the meetings.

An original and one copy of this *ex parte* notice is being filed with the Commission. If you have questions concerning this notice please do not hesitate to contact the undersigned.

Respectfully submitted, .


David Goodfriend

Director of Legal and Business Affairs
1233 20th St. NW Suite 701
Washington, DC 20036

CC: Susan Eid
Stacy Robinson
Catherine Bohigian
Alex Johns
Sarah Whitesell
William Johnson

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EchoStar Communications



The Effect of HD Must Carry on DBS Service

- The FCC declined in WHDT-DT to impose HD must carry on Echostar and moved the debate to the Digital Must Carry rulemaking. *In Re: Marksteiner v. EchoStar*, DA 03-139 (Rel. Jan. 17, 2003)
- We are updating the rulemaking record to include legal and technological reasons why HD must carry would be unlawful and harmful.



Legal & Policy Standards

- The central question: how much bandwidth consumption is too much?
- SHVIA allows for differences between cable and satellite must carry rules (satellite rules must be “comparable”, 47 U.S.C. 338(g), not identical).
- No explicit digital must carry statute for satellite, unlike for cable. See 47 U.S.C. 534(b)(4)(B).
- HD must carry would violate the First Amendment.
- HD must carry would undermine Congress’ intent to foster more local-into-local.



An Unconstitutional Application of SHVIA

- The 4th Circuit upheld SHVIA based on analog technology.
 - SHVIA is constitutional under the *O'Brien* standard
 - The “carry one-carry all” regime is content neutral, and;
 - The “incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of the government’s important interest.” *SBCA. v. FCC*, 275 F.3d 337,355 (4th Cir. 2001).
- Requiring high definition carriage vastly increases the burden on speech and therefore is constitutionally suspect.
- D.C. Circuit struck Fairness Doctrine using this “as applied” theory. *Meredith Corp. v. FCC*, 809 F.2d 863 (D.C. Cir. 1987).

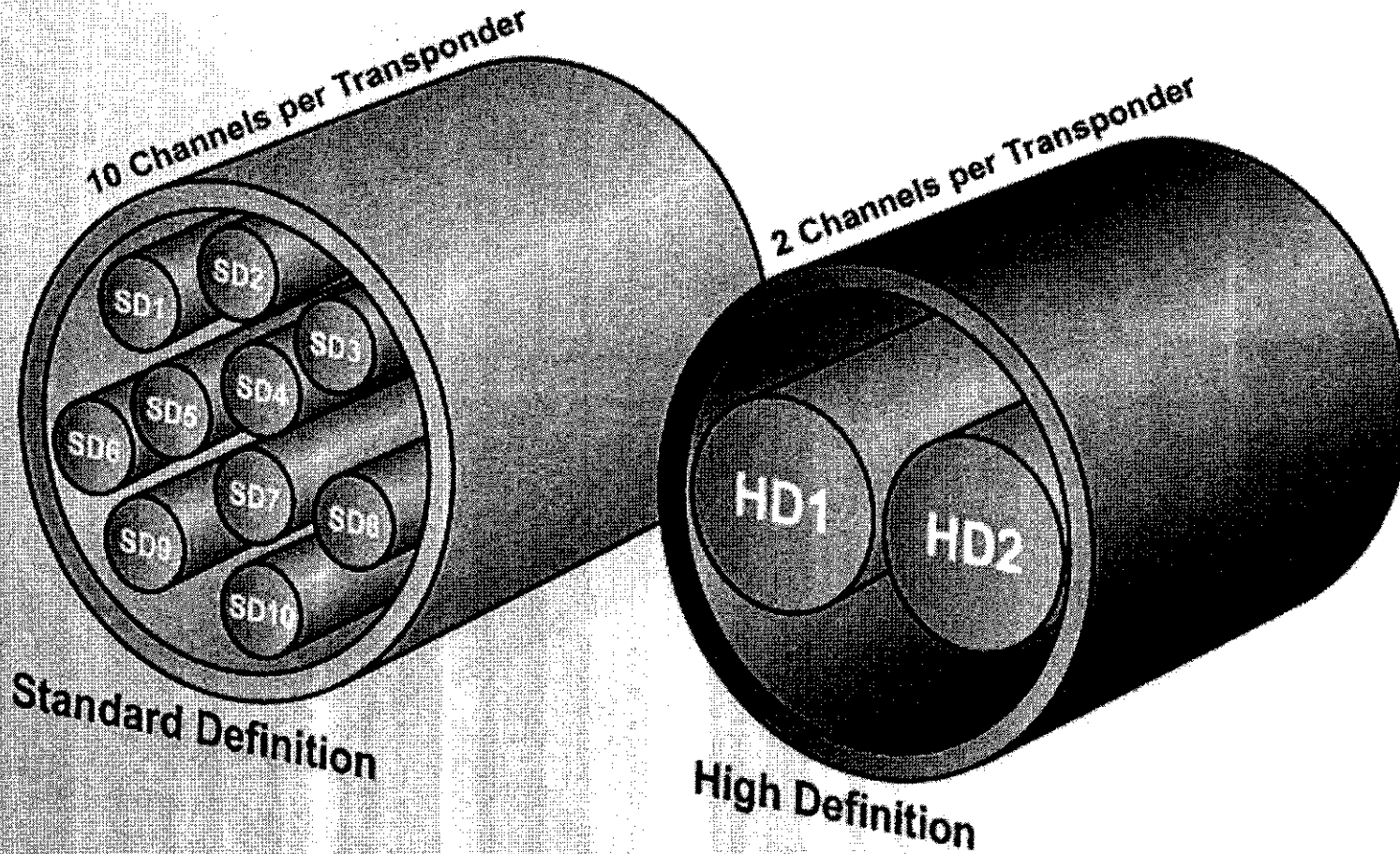


Eroding Local-into-Local is Bad Policy

- The capacity requirements of HD must carry would preclude or even reverse local-into-local service in multiple markets.
- In implementing SHVIA, the FCC declined to adopt digital carriage rules, pointing to arguments that carriage of digital stations could significantly erode Congressional intent of widespread introduction of local-into-local service. *DBS Must Carry*, 16 FCC Rcd 1918 (2000) at para. 123.



High Definition is Five Times the Burden as Standard Definition





Echostar Capacity

Conus Coverage 40 Transponders + 10 X 5 spot
Transponders

City View: 40 Transponders for national channels +
1 Transponder (best case) for locals



Echostar Capacity

Possible capacities:

National Coverage:

40 Xpndr = 1.229 Gbps 20 Ms QPSK R 5/6 (today)
= 1.364 Gbps 17.5 Ms 8PSK R 2/3 (conservative)
= 1.648 Gbps 21.5 Ms 8PSK R 2/3 (aggressive)

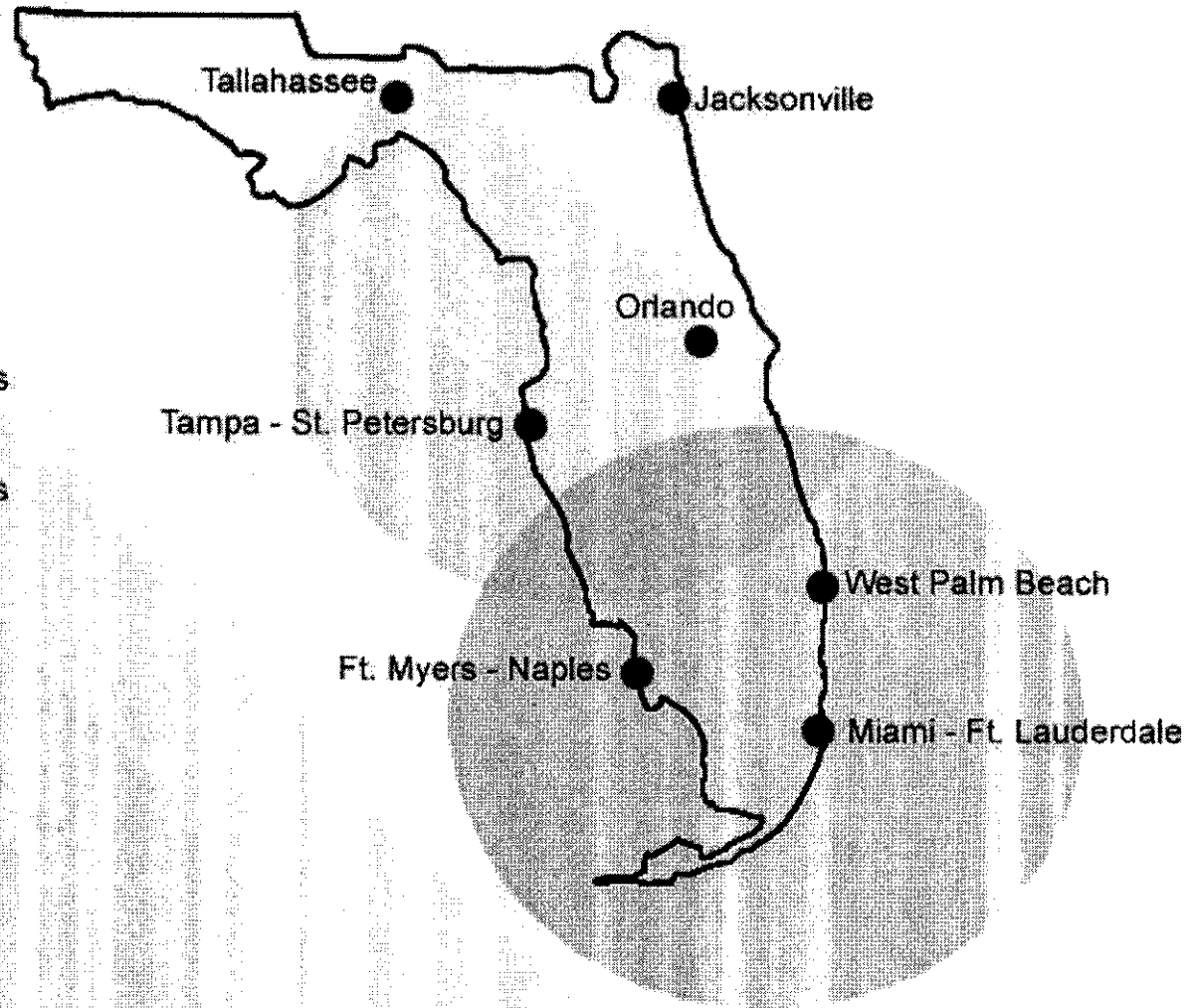
City Coverage:

1 Xpndr = 30.7 Mbps 20 Ms QPSK R 5/6 (today)
= 34.1 Mbps 17.5 Ms 8PSK R 2/3 (conservative)
= 41.2 Mbps 21.5 Ms 8PSK R 2/3 (aggressive)



Echostar Capacity

- Echo 8 – Spot 2, 2 transponders
- Echo 8 – Spot 3, 1 transponder
Echo 7- Spot 15, 2 transponders





Echostar Capacity

- 8PSK requires a new STB. Most Echostar STBs deployed have only QPSK. All new HD boxes have 8PSK as standard.
- 8PSK conservative is same availability as QPSK R3/4 High Power
- 8PSK aggressive lowers availability to QPSK R3/4 Low Power
- Today Echostar carries 10 SD channels in a 30.72 Mbps Transponder allowing all local channels from one city to be covered in one transponder
- Some locals have additional channels on the wing satellite to allow for more cities to be offered on a single dish system.
- At 19 Mbps per HD channel, Echostar can carry only 2 HD channels per transponder in the aggressive case.



Echostar Capacity

- Conclusion
 - Even in the most aggressive case Echostar can only carry two HD channels per transponder
 - At most, 5 spots are on one city, allowing only 10 HD channels; this may be inadequate to carry all channels in one city.
 - If HD must carry is required, the number of cities supported by Echostar would be severely reduced
 - For many markets there would be no way to cover all channels in HD since there are not enough spot transponders over the city.



Cable's HDTV Capability

- 750MHz/115ch system
- 256 QAM = 38.83 Mbps/6MHz channel
- Total Capacity = 4.465 Gbps
- 10 Local Channels at 19 Mbps = 190 Mbps
- National Channels = 4.465 Gbps – 190 Mbps = 4.275 Gbps



Cable vs Satellite

- National Coverage
 - 4.275 Gbps Cable vs 1.648 Gbps (best case) Satellite*
- Local Coverage
 - 190 Mbps Cable vs 41.2 Mbps (best case) Satellite*

*Requires All Echostar STB's to be replaced



Echostar Continues to Foster the **HD Revolution**

National Coverage HD Channels

- HBO HD
- Showtime HD
- Discovery HD
- HD PPV Movie
- CBS HD (where permitted)



Echostar HD Set-Top-Boxes

- Model 6000 (Shipping Now)
 - Optional 8VSB Module for \$149
 - 8PSK Upgrade Module for \$99 for already purchased units
 - 8PSK included for all new units shipped.
- Dish PVR921 (available Q203)
 - 8VSB tuner option
 - Two 8PSK satellite tuners
 - HDCP (DVI) digital video output
 - 1394CP (DTCP) for peripherals
 - Hard Drive for PVR functions (satellite or 8VSB)



Echostar HD Set-Top-Boxes

- DP811 (Available Q303)
 - Low cost HD receiver
 - 8VSB tuner option
 - 8PSK satellite tuner
 - HDCP (DVI) digital video output
- DP211 (Available Q303)
 - Basic receiver to attach to a 1394CP TV set
 - 8VSB in TV set
 - 8PSK satellite tuner



Echostar HD Set-Top-Boxes

- All new HD boxes have 8VSB option or included in the TV (DP211), for no charge
- Supports HD locals integrated into the EPG
- Requires antenna for 8VSB locals (indoor or outdoor)
- 8VSB locals are received in all digital quality

So why carry HDTV locals on the satellite?



Conclusion

- HD uses five times the bandwidth as SD
- Given the national coverage of DBS, this represents a severe burden; would be unlawful under satellite/cable must carry statutes and the First Amendment; and would restrict local-into-local
- EchoStar and the DBS industry already are spearheading the digital and HD revolution; the FCC should support, not undermine, these efforts